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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/786,066	02/26/2004	Paul M. Hofman	0142-0443P	4002
2292 7590 10/05/2007 BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747			EXAMINER SAJOUS, WESNER	
			ART UNIT 2628	PAPER NUMBER
			NOTIFICATION DATE 10/05/2007	DELIVERY MODE ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

Office Action Summary	Application No.	Applicant(s)	
	10/786,066	HOFMAN ET AL.	
	Examiner	Art Unit	
	Sajous Wesner	2628	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 August 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,4-17 and 19-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1,2,4-11,15-17 and 19-23 is/are allowed.
- 6) ☒ Claim(s) 12-14,24 and 25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Remark

This communication is responsive to the amendments and response dated August 21, 2007. Claims 1-2, 4-17, and 19-25 are presented for examination.

Response to Arguments

1. In response to the Applicant's argument that Jones and Sarr fail to teach a cluster module for determining such main color value of a digital color image by using a cluster analysis of the color values in a color space, the Examiner respectfully disagrees. While Jones is not specific about the above cited claimed limitation, Jones teaches the determination of a main color value from an image using a conversion module (see paragraphs 52, 54, 57, 81-85). What is lacking in Jones, as explained in the previous office action, is the use of a cluster analysis to determine colours values in a colour space, which is disclosed by Sarr. See paragraph 587 in light of paragraph 526. Thus, the combination of Jones and Sarr meet the limitation: a cluster module for determining such main color value of a digital color image by using a cluster analysis of the color values in a color space. Because both Jones and Sarr process image data to enable the user perceive and distinguish color variation, the combination is proper. Therefore, the Applicant's arguments are not deemed persuasive. The rejections of claims 12, 24-25 are sustained.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 12-14, and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jones et al. in view of Sarr et al. (US 20070041619).

Regarding claims 12 and 13, Jones discloses an apparatus for converting a digital colour image having colour values to a digital colour image with improved colour distinction for an observer suffering from a type of colour-blindness, wherein the digital colour image with improved colour distinction is having converted colour values, comprises a memory for storing a digital colour image (see paragraph 78); and a processing unit for processing the digital colour image, the processing unit including, a cluster module for determining main colour values of the digital colour image by using a cluster analysis of the colours values in a colour space, and a conversion module for converting, by a conversion function, including an analysis module for determining the type of the colour-blindness of said observer, the main colour values to converted the main colour values such that the converted main colour values are perceived as distinguishable from each other by said observer. See paragraphs 52, 54, 57, 81-85.

Jones fails to teach the use of a cluster analysis to determine colours values in a colour space.

Sarr teaches the use of a cluster analysis to determine colours values in a colour space. See paragraph 587 in light of paragraph 526.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teaching of Jones to include the use of a cluster analysis to determine colours values in a colour space, in the same conventional manner as taught by Sarr; in order to enable a user to handle color sweeps seen in a digital image by extracting a few color by the cluster analysis in the color values.

Re claim 14, Jones discloses a colour mapping module for establishing a position in a part of the colour space of the main colour values and of converted main colour values with respect to confusion lines. See paragraphs 73-74.

Claim 25 is an apparatus claim with limitations that correspond to the limitations recited in claim 12; it is therefore, rejected under the same rationale as claim 12.

4. Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Jones et al. in view of Sarr et al. (US 20070041619) and further in view of White et al. (US 20040041924).

Regarding claim 24, Jones discloses an apparatus for converting a digital colour image having colour values to a digital colour image with improved colour distinction for an observer suffering from a type of colour-blindness, wherein the digital colour image with improved colour distinction is having converted colour values, comprises a memory for storing a digital colour image (see paragraph 78); and a processing unit for processing the digital colour image, the processing unit including, a cluster module for

determining main colour values of the digital colour image by using a cluster analysis of the colours values in a colour space, and a conversion module for converting, by a conversion function, including an analysis module for determining the type of the colour-blindness of said observer, the main colour values to converted the main colour values such that the converted main colour values are perceived as distinguishable from each other by said observer. See paragraphs 52, 54, 57, 81-85 in light of paragraph 36.

Jones fails to teach the use of a cluster analysis to determine colours values in a colour space.

Sarr teaches the use of a cluster analysis to determine colours values in a colour space. See paragraph 587 in light of paragraph 526.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teaching of Jones to include the use of a cluster analysis to determine colours values in a colour space, in the same conventional manner as taught by Sarr; in order to enable a user to handle color sweeps seen in a digital image by extracting a few color by the cluster analysis in the color values.

Jones and Sarr fail to teach a printer provided with a network connection for receiving generated print orders and processing digital image.

White et al. Discloses a printer provided with a network connection for receiving generated print orders and processing digital image. See paragraph 74 in light of paragraph 70.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Jones and Sarr to include a

printer provided with a network connection for receiving generated print orders and processing digital image, in the same conventional manner as taught by White; in order to allow the user to upload or download a hard copy of the digital color image.

Allowable Subject Matter

5. Claims 1-2, 4-11, 15-17 and 19-23 are allowed over the prior art because the Applicant, by amendments, have incorporated allowable subject matters into the rejected base claims. See previous office action. As a result, the limitations of claims 1-2, 4-11, 15-17 and 19-23 are allowed over the prior art.

Conclusion

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

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7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sajous Wesner whose telephone number is 571-272-7791. The examiner can normally be reached on M-F 9:15-6:45.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Razavi can be reached on 571-272-7664. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Sajous Wesner
Primary Examiner
Art Unit 2628

WS
9/19/07